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Applicant : Cy A. Stein

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Serial No.: 09/832,648

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Filed : April 11, 2001

For : OLIGONUCLEOTIDE INHIBITORS OF bcl-xL

1185 Avenue of the Americas  
New York, New York 10036  
January 7, 2002

Assistant Commissioner for Patents  
Washington, D.C. 20231

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INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. § 1.56, applicants would like to direct the Examiner's attention to the following references which are listed on the attached Form PTO-1449 (**Exhibit A**). The following references were previously cited in connection with the prosecution of U.S. Serial Number 09/109,614 from which the subject application claims benefit under 35 U.S.C. §120. According to 37 C.F.R. §1.98(d), copies of patents or publications that were previously cited by, or submitted to, the Office in connection with such prior applications need not accompany the Information Disclosure Statement. Accordingly, copies of the following references are not attached to this Information Disclosure Statement:

1. U.S. Patent No. 5,023,243, (Tullis, R.) issued June 11, 1991;
2. U.S. Patent No. 5,107,065, (Schewmaker et al.) issued April 21, 1992;

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3. U.S. Patent No. 5,587,470, (Cook, P.D., et al.) issued December 24, 1996;
4. U.S. Patent No. 5,670,633, (Cook, P. D., et al.) issued September 23, 1997;
5. U.S. Patent No. 5,734,033, (Reed, J.) issued March 31, 1998;
6. U.S. Patent No. 5,843,713 (Yoshida et al.) issued 12/1998;
7. U.S. Patent No. 5,776,905 (Gibbons et al.) issued 7/1998;
8. U.S. Patent No. 5,702,897 (Reed et al.) issued 12/1997;
9. U.S. Patent No. 5,496,547. (Lam et al.) issued 3/1996;
10. U.S. Patent No. 5,593,974 (Rosenberg et al.) issued 1/1997;
11. Agrawal, S., et al., Proc. Natl. Acad. Sci. U.S.A. (1988) Vol. 85:7079-7083;
12. Beaucage, S., and Caruthers, M., Tetrahedron Lett. (1981) Vol. 22:1859-1862;
13. Cook, P.D., "Medicinal Chemistry of Antisense Oligonucleotides- future opportunities" (1991) Anti Cancer Drug Design Vol. 6:585-607;
14. Ghosh, S., et al., J. Biol. Chem. (1990) Vol. 265:2935-2940;

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Serial No.: 09/832,648  
Filed : April 11, 2001  
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15. Hemken, P., et al., J. Biol. Chem. (1992) Vol. **267**:9948-0057;
16. Iverson, P., Anti-Cancer Drug Des. (1991) Vol. **6**:531-538;
17. Krajewska, M. et al. "Immunohistochemical analysis bcl-2, bax, bcl-x, and mcl-1 expression in prostate cancer." Am. J. Pathol. (1996) Vol. **148**:1567-1576;
18. Luedke, G.H., Ziegler, Al., Stahel, R.A., and Zangemeister-Wittke, U., "Antisense oligonucleotides targeting sequences shared by the Bcl-2 and the Bcl-xL mRNA efficiently downregulate expression of both proteins and induce apoptosis of lung cancer cells." Division of Oncology, Department of Internal Medicine, University Hospital, CH-8091 Zurich, Switzerland. (Abstract #1140 from 88 Ann. Meet. AACR, April 12-16, 1997, Vol. **38**, (March 1997), p. 171);
19. Milligan et al., "Current Concepts in Antisense Drug Design," Journal of Medicinal Chemistry (July 9, 1993) Vol. **36**:1924-1937;
20. Pollman et al., "Inhibition of neointimal cell bcl-x expression induces apoptosis and regression of vascular disease," Nature Medicine (1998) Vol. **4**:222-227;
21. Ratajczak, et al., Proc. Natl. Acad. Sci. U.S.A. (1992) Vol. **89**:11823 (Exhibit 16);
22. Stein, C. et al., Pharmac. Ther. (1991) Vol. **52**:365-384;

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Serial No.: 09/832,648  
Filed : April 11, 2001  
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23. Uhlmann, E. And Peyman A., "Antisense Oligonucleotides: A New Therapeutic Principle" Chem. Rev. (1990) Vol. 90:544-579;
24. Wang, Z. et al., "Induction of bcl-xl by CD40 Engagement Rescues slg-induced Apoptosis in Murine B Cells", The Journal of Immunology (1995) Vol. 155:3722-3725;
25. Zhao, Q., et al., Antisense Research and Development (1993) Vol. 3:53-66;
26. Zon, G., "Oligonucleotide Analogues as Potential Chemotherapeutic Agents," Pharmaceutical Research (November 9, 1988) Vol. 5:539-549;
27. "Antisense 1997: A roundtable on the state of the industry" (1997) Nature Biotechnology 15:519-524.
28. Crooke, S.T., "Vitravene - Another piece of the Mosaic". (1998) Antisense and Nucleic Acid Drug. Dev. 8:vii-viii;
29. Gewritz et al. "Facilitating oligonucleotide delivery: helping antisense deliver on its promise" (1996) PNAS 93:3161-3163;
30. Gura, T. "Antisense has growing pains" (1995) Science 270:575-577;
31. Stein C.A. "Keeping the Biotechnology of antisense in context" (1999)Nature Biotechnology 17:209;
32. Stull et al. "Antigene, ribozyme and aptamer nucleic acid

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Serial No.: 09/832,648  
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drugs: Progress and prospects" (1995) Pharm. Res. 12:465-483; and

33. Rojanasakul, Y. "Antisense oligonucleotide therapeutics: Drug delivery and targeting" (1996) Adv. Drug Delivery Rev. 18:115-131.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

No fee is deemed necessary in connection with the filing of this information disclosure statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:	
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